

U.S. Patent Application Serial No. 09/814,099
Amendment filed February 4, 2005
Reply to OA dated December 1, 2004

REMARKS

Claim 1 has been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention. The applicant respectfully submits that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated December 1, 2004.

Claims 1 - 3 and 11 - 13 are currently pending in this patent application, claims 4 - 10 having been withdrawn as a result of a Response to a Restriction Requirement filed on April 10, 2002. Claims 1 - 3 and 11 - 13 are independent claims.

At the outset, the applicants thank the Examiner for maintaining his position that claims 2, 3 and 11 - 13 have been allowed. The Examiner's reasons for allowance can be found in item 4, pages 3 and 4 of the outstanding Action.

However, the Examiner maintains his rejection of claim 1 under 35 USC §103(a) based on Hanamoto (U.S. Patent No. 5,356,259). The applicant respectfully requests reconsideration of this rejection.

In the Response filed August 23, 2004, the applicant's arguments against the Hanamoto reference include the fact that the Examiner had taken the position that the recognition of a pedal's 10 operation in Hanamoto reflects the applicant's claimed excavating state detecting means. It was argued that Hanamoto's pedal 10 is however operated by a user:

for instructing an automatic excavation mode in addition to two operation levers 11 and 12 for providing commands for rotation and pivoting motion for the boom, arm and bucket.^{1/}

More particularly, Hanamoto discloses an operation pedal 10 for instructing an automatic excavation mood in addition to two operation levers 11 and 12 for providing commands for rotation and pivoting motion for the boom, arm and bucket. The moment when the operation pedal 10 has been trodden is the moment for starting excavation and the position of the front edge of the bucket at that moment is made the position to start excavation. In any event, it is impossible to determine the moment to start excavation until the operation pedal 10 is trodden by an operator.

In response, the Examiner now argues that:

it is clear that the controller (which is the excavating state detecting means) must constantly in operating and monitoring state to monitor the data report of the position of the pedal and the pressure of the pump to determine if the vehicle starts (or is in) excavating state.^{2/}

^{1/} See, lines 20 - 24, column 9 in Hanamoto.

^{2/} See, lines 17 - 20, page 5 of the outstanding Action.

Instead of further traversing this point now raised by the Examiner, the applicant, as an alternative, would like to refer to the Examiner's comments concerning the allowability of certain claimed subject matters. In, for example, item 4, lines 3 - 7, page 3 of the outstanding Action, the Examiner states that:

[s]pecifically, prior art of record does not teach the excavating machine that starts an automatic excavation control when [1] the load judging portion judges that the vehicle is under excavation and [2] the operating amount change judging portion judges that the boom lever operating amount changes from a predetermined operating amount to a zero amount.^{3/}

Notations added. In other words, independent claim 1 contains the allowable subject matter concerning the claimed controller having a load judging portion that judges based on a detecting amount inputted from the claimed excavating state detecting means whether or not the vehicle is under excavation. However, independent claim 1, does not include the additional allowable claimed subject matter concerning, in the Examiner's words: "the operating amount change judging portion judges that the boom lever operating amount changes from a predetermined operating amount to a zero amount."^{4/}

^{3/} See, also, the Examiner's comments concerning the allowable claimed subject matter, as set forth in lines 1 - 4, page 5 of the outstanding Action.

^{4/} See, again, item 4, lines 5 - 7, page 3 of the outstanding Action.

Accordingly, in light of the Examiner's suggestion, the applicant at this time has amended independent claim 1 so as to more particularly recite that the claimed controller includes:

an operating amount change judging portion judging on the basis that the boom lever operating amount changes from a predetermined operating amount to a zero amount.

Hanamoto clearly teaches that the operator moves the front edge of the bucket to a desired position in order to start excavation by operating the operation levers 11, 12 (see, Hanamoto's Figure 5(a)), and then selects the automatic excavation mood and assigns the function for starting excavation by treading the operation pedal 10 (see, Hanamoto's Figure 5(b)). (See, lines 29 - 38, column 9 in Hanamoto.) Accordingly, if the condition for determining the moment to start excavation is set to the moment when the pump pressure after the operation pedal has been trodden reaches the set value J or more, it becomes possible to more precisely determine the point for starting the excavation. (See, lines 56 - 68, column 16 in Hanamoto.)

In any event, it is impossible to determine the moment for starting excavation unless the operation pedal is trodden by the operator. Accordingly, Hanamoto's controller 20 is not constantly in operating and monitoring state to determine if the vehicle starts excavating contrary to the Examiner's contention, as set forth in item 5, pages 4 - 6, labeled "Response to Arguments", of the outstanding Action.

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On the other hand, the applicant's claimed controller, as set forth in claim 1, is constantly in operating and monitoring state to determine whether or not the vehicle is under excavation without such a requirement as treading the operation pedal (see, the last line, page 22 through line 12, page 23 of the applicant's specification). It is respectfully submitted that such teaching of the applicant's claimed invention is not taught in Hanamoto, and would not have been obvious to a person of ordinary skill in the art based on the above-discussed teachings of Hanamoto.

Accordingly, the withdrawal of the outstanding obviousness rejection under 35 USC §103(a) based on Hanamoto (U.S. Patent No. 5,356,259) is in order, and is therefore respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.

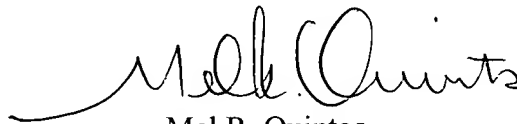
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP



Mel R. Quintos
Attorney for Applicant
Reg. No. 31,898

MRQ/lrj/ipc

Atty. Docket No. **010270**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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